UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,505	10/26/2001	Michael S. Foster	030048025US	8936

25096 7590 04/19/2005

PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
HAN, CLEMENCE S	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,505	FOSTER ET AL.	
	Examiner	Art Unit	
	Clemence Han	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/26/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-8, 10-20, 22-33 and 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitchem et al. (US 6,608,819).

Regarding to claim 1, Mitchem teaches a method in a switch for buffering data received through a source port before transmitting the data through a destination port, the method comprising: receiving a first frame of data through the source port 16 (Column 6 Line 49); storing the received first frame of data; receiving a second frame of data through the source port (Column 6 Line 49); storing the received second frame of data; selecting either the first frame or the second frame for transmitting through the destination port based on a priority score of the first frame and the second frame (Column 6 Line 55-58).

Regarding to claim 2, Mitchem teaches the first and second frames are stored in a buffer that is used to store frames received only through the source port (Column 7 Line 66).

Regarding to claim 3, Mitchem teaches the priority score of a frame based on a priority associated with the frame (Column 6 Line 59-61).

Regarding to claim 4, Mitchem teaches the priority score of a frame based on a class of service of the frame (Column 7 Line 41-44).

Regarding to claim 5, Mitchem teaches the priority score of a frame based on latency of the frame (Column 9 Line 13-17).

Regarding to claim 6, Mitchem teaches the first frame is stored in a first buffer and the second frame is stored in a second buffer and all frames of a connection are stored in the same buffer (Figure 4A).

Regarding to claim 7, Mitchem teaches the switch is an interconnect fabric Module 12.

Regarding to claim 8, Mitchem teaches the switch is Fibre Channel compatible (Column 6 Line 39).

Regarding to claim 10, Mitchem teaches the second frame is received after the first frame and wherein the second frame is selected (in Figure 4B, frame C was received later than frame B but selected to be transmitted before frame B).

Regarding to claim 11, Mitchem teaches a later received frame is selected before an earlier received frame (in Figure 4B, frame C was received later than frame B but selected to be transmitted before frame B).

Regarding to claim 12 and 25, Mitchem teaches a routing device comprising: a first buffer for storing a first frame received through a source port 16 (Column 6 Line 49); a second buffer for storing a second frame received through the source port 16 (Column 6 Line 49); and a component that selects either the first frame or the second frame for transmitting through a destination port based on a priority score of the first frame and the second frame (Column 6 Line 55-58).

Regarding to claim 13 and 26, Mitchem teaches each source port of the routing device has a first and second buffer and a component that selects (Figure 4A and Column 7 Line 65 – Column 8 Line 1).

Regarding to claim 14 and 27, Mitchem teaches the first and second buffer are used to store frames received only through the source port (Column 7 Line 66).

Regarding to claim 15 and 28, Mitchem teaches the priority score of a frame is based on a priority associated with the frame (Column 6 Line 59-61).

Regarding to claim 16 and 29, Mitchem teaches the priority score of a frame is based on a class of service of the frame (Column 7 Line 41-44).

Regarding to claim 17 and 30, Mitchem teaches the priority score of a frame

is based on latency of the frame (Column 9 Line 13-17).

Regarding to claim 18 and 31, Mitchem teaches all frames of a connection are stored in the same buffer (Figure 4A).

Regarding to claim 19 and 32, Mitchem teaches the routing device is an interconnect fabric module 12.

Regarding to claim 20 and 33, Mitchem teaches the routing device is Fibre channel compatible (Column 6 Line 39).

Regarding to claim 22 and 35, Mitchem teaches the second frame is received after the first frame and the second frame is selected (in Figure 4B, frame C was received later than frame B but selected to be transmitted before frame B).

Regarding to claim 23 and 36, Mitchem teaches a later received frame is selected before an earlier received frame (in Figure 4B, frame C was received later than frame B but selected to be transmitted before frame B).

Regarding to claim 24 and 37, Mitchem teaches the routing device is a switch 12.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 9, 21 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchem et al. in view of Hu et al. (US 6,535,518).

Regarding to claim 9, Mitchem teaches a method in a switch for buffering data received through a source port before transmitting the data through a destination port, the method comprising: receiving a first frame of data through the source port 16 (Column 6 Line 49); storing the received first frame of data; receiving a second frame of data through the source port (Column 6 Line 49); storing the received second frame of data; selecting either the first frame or the second frame for transmitting through the destination port based on a priority score of the first frame and the second frame (Column 6 Line 55-58). Mitchem, however, does not teach InfiniBand compatible switch. Hu teaches InfiniBand compatible switch (Column 7 Line 45-55 and Column 8 Line 16). It would have been obvious to one skilled in the art to modify Mitchem to be InfiniBand compatible as taught by Hu in order to be implemented in various possible network (Column 8 Line 10-13).

Regarding to claim 21 and 34, Mitchem teaches a routing device comprising: a first buffer for storing a first frame received through a source port 16 (Column 6 Line 49); a second buffer for storing a second frame received through

the source port 16 (Column 6 Line 49); and a component that selects either the first frame or the second frame for transmitting through a destination port based on a priority score of the first frame and the second frame (Column 6 Line 55-58). Mitchem, however, does not teach InfiniBand compatible routing device. Hu teaches InfiniBand compatible routing device (Column 7 Line 45-55 and Column 8 Line 16). It would have been obvious to one skilled in the art to modify Mitchem to be InfiniBand compatible as taught by Hu in order to be implemented in various possible network (Column 8 Line 10-13).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Patent 6,104,700 to Haddock et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.

Clemence Han
Examiner
Art Unit 2665

STEVEN NGUYEN
PRIMARY EXAMINER